

REMARKS

By this Amendment, claims 46, 48 and 50-51 are amended. Claims 47 and 49 remain in the application. Thus, claims 46-51 are active in the application.

Reexamination and reconsideration of the application are respectfully requested.

In item 6 on page 2 of the Office Action, claims 46-51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fletcher et al. (U.S. 7,010,681).

Without intending to acquiesce to this rejection, independent claims 46, 48 and 50-51 have each been amended to more clearly illustrate the marked differences between the present invention and the applied reference. Accordingly, the Applicants respectfully submit that the present invention is patentable over the applied reference for the following reasons.

The present invention, as recited in claim 46, provides a data processor for receiving and processing data to which information for tampering detection is added. The data processor of claim 46 includes the following features (A) to (C):

(A) The data compressor of claim 46 comprises a receiver operable to receive data which includes an authentication information region for including the tampering detection information, a protected data region for including data to be subjected to tampering detection, and an unprotected data region for including data that is not to be subjected to tampering detection. The protected data region includes an unprotection list which lists tag names indicating types of the data included in the unprotected data region.

(B) The data processor of claim 46 comprises a protected data authentication unit operable to detect, for the data, which is included in the protected data region and received by the receiver, whether the data included in the protected data region has been tampered with by using the tampering detection information included in the authentication information region; and

(C) The data processor of claim 46 also comprises an unprotected data authentication unit operable to determine the data included in the unprotected data region as being valid when a tag name indicating a type of the data, which is included in the unprotected data region and received by the receiver, coincides with a tag name in the unprotection list which has been confirmed as not having been tampered with by the protected data authentication unit.

Accordingly, the data processor of claim 46 determines the data included in the unprotected data region as being valid when a tag name, which indicates a type of the data included in the unprotected data region and received by the receiver, coincides with a tag name in the unprotection list which has been confirmed, by the protected data authentication unit, as not having been tampered with. This feature of the present invention increases the reliability of the data in the unprotected data region (i.e., the data that has not been subjected to encryption). This increased reliability is particularly based on the following two points achieved by the invention of claim 46:

(1) There is no possibility of the unprotection list being tampered with, since the unprotection list, which lists tag names indicating types of the data that are not to be subjected to tampering detection, is confirmed in advance by the protected data authentication unit as not having been tampered with.

(2) If a tag name indicating a type of the data included in the unprotected data region does not coincide with a tag name in the unprotection list, such data is determined to be unreliable and is accordingly discarded.

In addition, the unprotection list is provided merely as a list which lists tag names indicating types of the data included in the unprotected data region, and therefore, encryption of the unprotection list can be performed quickly.

Accordingly, the data processor of claim 46 provides a novel and remarkable effect in which the validity of data in the unprotected data region is verified in a simple manner while the amount of time that is required for encrypting the unprotection list is prevented from being unnecessarily prolonged.

In contrast to the data processor of claim 46, Fletcher merely discloses in Figure 2 that data identified by a tag indicating a security level of “secret” contains data identified by a tag indicating a different security level of “top secret.”

However, Fletcher clearly does not disclose or suggest a receiver operable to receive data which includes a protected data region for including data to be subjected to tampering detection and an unprotected data region for including data that is not to be subjected to tampering detection, where the protected data region includes an unprotection list which lists tag names indicating types of the data included in the unprotected data region, as recited in claim 46.

Furthermore, Fletcher clearly does not disclose or suggest an unprotected data authentication unit operable to determine the data included in the unprotected data region as being valid when a tag name indicating a type of the data, which is included in the unprotected data region and received by the receiver, coincides with a tag name in the unprotection list which has been confirmed as not having been tampered with by the protected data authentication unit, as recited in claim 46.

Accordingly, since Fletcher fails to disclose or suggest features (A) and (C) of the data processor of claim 46, no obvious modification of the teachings of Fletcher would result in or produce the effects (1) and (2) of the present invention in which encryption of the unprotection list is performed quickly and the reliability of the data included in the unprotected data region is increased.

Therefore, the Applicants respectfully submit that claim 46 is clearly patentable over Fletcher since Fletcher fails to disclose or suggest each and every limitation of claim 46 and fails to obtain the remarkable and novel effects of the data processor of claim 46.

Furthermore, it must be noted that the above features (A) and (C) are also not disclosed or suggested in Cofta (U.S. Patent Application Publication No. 2001/0016042), Shear (U.S. 6,157,721) or Atkinson (U.S. 5,892,904).

Accordingly, no obvious combination of the teachings of Fletcher, Cofta, Shear and Atkinson would result in the invention of claim 46, since Fletcher, Cofta, Shear and Atkinson, either individually or in combination, each fail disclose or suggest features (A) and (C) of the data processor of claim 46.

Claims 48, 50 and 51 have each been amended to include limitations similar to features (A) to (C) described above with respect to claim 46.

Claim 48 recites a data processor structured by a transmitting data processor and a receiver data processor, where the transmitting data processor is operable to transfer, to the receiving data processor, data to which information for tampering detection is added.

The data processor of claim 48 is recited as comprising the protected data authentication unit and the unprotected data authentication unit of claim 46.

Claim 50 recites a data processing method which performs operations similar to those of the data processor of claim 46. Claim 51 also recites a data processing method which performs operations similar to those of the data processor of claim 48.

Claims 48, 50 and 51 therefore each recite limitations substantially similar to features (A)-(C) described above with respect to claim 46.

As demonstrated above, Fletcher clearly fails to disclose or suggest features (A) and (C) described above.

Therefore, the inventions of claims 48, 50 and 51 are similarly patentable over Fletcher since Fletcher fails to disclose or suggest each and every limitation of claims 48, 50 and 51.

Furthermore, the Applicants respectfully submit that no obvious combination of the teachings of Fletcher, Cofta, Shear and Atkinson would result in the inventions of claims 48, 50 and 51, since Fletcher, Cofta, Shear and Atkinson, either individually or in combination, each fail disclose or suggest features (A) and (C) of claims 48, 50 and 51.

Moreover, it is submitted that the clear distinctions discussed above are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Fletcher, Cofta, Shear and Atkinson in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 46, 48 and 50-51.

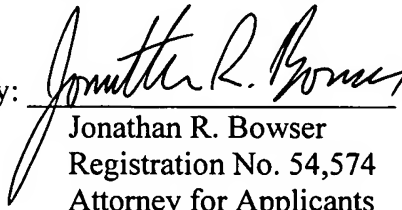
Therefore, the Applicants respectfully submit that the claims 46, 48 and 50-51, as well as claims 47 and 49 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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